



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/566,186	01/26/2006	Markus Erfort	740116-871	2100
25570	7590	03/31/2010	EXAMINER	
ROBERTS MLOTKOWSKI SAFRAN & COLE, P.C. Intellectual Property Department P.O. Box 10064 MCLEAN, VA 22102-8064			CERULLO, LILIANA P	
			ART UNIT	PAPER NUMBER
			2629	
			NOTIFICATION DATE	DELIVERY MODE
			03/31/2010	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

lgallagher@rmsclaw.com  
dbeltran@rmsclaw.com  
bdiaz@rmsclaw.com

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/566,186	ERFORT ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	LILIANA CERULLO	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 04 February 2010.  
 2a) This action is **FINAL**.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 14-28 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 14-28 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
     1. Certified copies of the priority documents have been received.  
     2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
     3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                  | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                         | Paper No(s)/Mail Date. _____ .                                    |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ . | 5) <input type="checkbox"/> Notice of Informal Patent Application |
|  | 6) <input type="checkbox"/> Other: _____ .                        |

## DETAILED ACTION

In an amendment dated, 2/04/2010, the Applicant amended claim 14. Currently claims 14-28 are pending.

### ***Claim Objections***

1. **Claims 16 and 27** are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim.

Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 16 recites limitations that are already required in claim 14 lines 19-22, and claim 27 recites limitations that are already required in claim 14 lines 7-10.

**Claim 26** is objected to because of the following informalities: Line 3 "the control signal" should read "a control signal" because this is the first time the term control signal is introduced in either claim 26, 24 or 14. For the purpose of examination the examiner interpreted "the control signal" as "a control signal".

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. **Claims 14-19 and 24-28** are rejected under 35 U.S.C. 103(a) as being unpatentable over Muoio et al. in US 6,670,934 (hereinafter Muoio).
4. Regarding **claim 14**, Muoio discloses a method (col. 3 lines 36-37) for the visualization of digital display elements (*art images to be displayed as shown in Fig. 1 per col. 4 lines 42-44*) on a plurality of display devices (*Fig. 6, displays 605 per col. 6 lines 14-17*), wherein the visualization of display elements (*images of Fig. 1 and col. 6 lines 22-25*) on a first display device (*display device on a space of the house, e.g. bedroom space child1 of Fig. 4 and col. 5 lines 34-50 and col. 3 lines 48-52*) and the visualization of display elements (*images of Fig. 1 and col. 6 lines 22-25*) on at least one additional display device (*display device on a space of the house, e.g. master bedroom of Fig. 4 and col. 5 lines 34-50 and col. 3 lines 48-52*) takes place in a chronologically (as required for displaying different art images in sequence per a playlist as shown in Fig. 3 and col. 5 lines 5-9, col. 1 lines 45-50) and spatially coordinated manner (*Fig. 4 and col. 5 lines 29-50 where the art images arranged in a playlist are assigned to different spaces in a house*), wherein said at least one additional display device is visually coordinated with said first display device (*Fig. 4 and col. 5 lines 29-50 where for example the bedrooms space, including master and child1, are displaying art play list 10, thus they are visually coordinated*), characterized in that:

providing a plurality of display computer devices (*art space controllers 603 of Fig. 6 and col. 6 lines 14-17*), and a control computer device (*art server controller 707 of Fig. 7 which is part of art server 601 of Fig. 6 and col. 6 lines 14-17*) connected to said

display computer devices (as shown in Fig. 6) wherein each display computer device (*art space controllers 603 of Fig. 6*) is associated with a minimum of one display device (*display 605 of Fig. 6 and col. 6 lines 14-17*), and the display devices (*display 605 of Fig. 6*) are arranged in a freely configurable order with respect to location (*there is no requirement for the location of the displays or rooms of col. 5 lines 34-50*) but coordinated with respect to each other (*per the hierarchy and playlists of col. 5 lines 30-50 and Fig. 4*) in a manner enabling a viewer to view a sequenced presentation (*a playlist is a sequenced presentation per col. 1 lines 45-50 and Fig. 4*) despite movement of the viewer between different locations which are not arranged in a linear sequence (*the displaying of the playlist does not depend on movement of the viewer between different locations, nor are the locations required to be in a linear sequence per col. 10 lines 35-38, but rather depend on the playlist selection as shown in Figs. 4-5*);

transmitting a minimum of one display element (*images of Fig. 1 and col. 6 lines 45-46 referring to the image database 703 in Fig. 7*) in a file format (as required for *having an electronic copy of col. 4 lines 27-30*) and a minimum of one control information (as required to *identify the image to be displayed and the display interval per col. 6 lines 40-45*) to the control computer device (*art server controller 707 of Fig. 7 per col. 6 lines 58-63*) in a sequence plan (*playlist of Fig. 4*);

said control information specifying the point in time and the location of the display of the display elements on a display device (*display interval of col. 6 lines 40-45 and identification of playlist assigned to a space of col. 6 lines 46-49*);

said control computer device (*art server controller 707 of Fig. 7*) analyzing said sequence plan (col. 6 lines 58-63 where the art servers controller controls the operation of the server including play list changes) and generating a minimum of one control command from the control information (as required for communication between the server 601 and the displays in Fig. 6. This control command is generated upon running the functions that check for changes in the playlist per col. 8 lines 43 to col. 9 line 7, e.g. updated image identifier along with the playlist control information of col. 6 lines 40-49);

said control computer device (*art server controller 707 of Fig. 7*) transmitting the display element (*art images to be displayed as shown in Fig. 1*) and the control command (*changes and playlist of col. 6 lines 40-49*) to the display computer device (*art space controllers 603 of Fig. 6*);

transforming the display elements (*art images to be displayed as shown in Fig. 1*) from the file containing the display element (as required for having an electronic copy of col. 4 lines 27-30), which display elements are available in digital form (as required for having an electronic copy of col. 4 lines 27-30), as a result of the control command (recall that the control command is an updated playlist with any changes from server to art space controllers of Figs. 6-7 and 4) by the display computer device (*art space controllers 603 of Fig. 6 and col. 6 lines 14-17*) into signals in a graphic card format in order to display the display element on the display device and to transmit it to the associated display device (as required for display of an image as shown in Fig. 1 and col. 4 lines 9-27);

said control command (*recall that the control command is the updated playlist from server to art space controllers of Figs. 6-7 and 4*) specifying the point in time (col. 6 lines 42-45) at which the display computer device (*art space controllers 603 of Fig. 6 and col. 6 lines 14-17*) transmits a signal and the display device to which the signal is to be transmitted (*col. 7 lines 27-38 referring to the art space controller looping through the playlist and displaying the images on the display devices*).

Muoio fails to disclose in their invention the use of a display computer device serving exclusively to generate an image signal from the digital display element. However, in the background of the specification, Muoio discloses that at museums, a central computer systems controls the displaying of a play list on various display devices, and that the images can be stored at the central computer system. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use a display computer device (*art space controllers 603 of Fig. 6*) exclusively assigned to generate an image signal from the digital display element stored in the server (Fig. 7) according to a playlist (Fig. 4) also stored in the server, when it is unnecessary to provide user input other than the administrator, such as in museums environments (col. 1 lines 50-64).

5. Regarding **claim 15**, Muoio teaches said sequence plan to be a play list (*Figs. 3-4*) and in that a plurality of display elements (*Art Names of Fig. 3*) and control information (*col. 6 lines 42-45 length of time*) are complied in said play list (*Fig. 3 and*

*col. 4 lines 42-50) and that said play list is transmitted to the control computer device (col. 7 lines 28-36).*

6. Regarding **claim 16**, Muoio teaches said playlist is analyzed by the control computer device (*art server controller 707 of Fig. 7 and col. 6 lines 58-63 referring to the server controller controlling play list changes*) with control commands (*recall that the control command is the updated playlist from server to art space controllers of Figs. 6-7 and 4*) being generated for the display of the display elements compiled in said play list (as necessary for displaying the images per *Fig. 6 and col. 7 lines 2-8*).

7. Regarding **claim 17**, Muoio teaches the display computer device (*art space controllers 603 of Fig. 6*) and control computer device (*art server controller 707 of Fig. 7*) integrated into a network (as shown in *Fig. 6*).

8. Regarding **claim 18**, Muoio teaches the same display elements are transmitted to a minimum of two display computer devices (*col. 5 lines 41-45*).

9. Regarding **claim 19**, Muoio teaches the control command (*recall that the control command is the updated playlist from server to art space controllers of Figs. 6-7 and 4; note that this includes the image to be displayed*) to be transmitted close to the time of the desired display of the display elements to the display computer device (*col. 7 lines 2-13 where the next image is sent when the current image is being displayed*).

10. Regarding **claim 24**, Muoio discloses the period of time between the beginning of the transmission of the control command (*recall that the control command is the updated playlist from server to art space controllers of Figs. 6-7 and 4; note that this includes the image to be displayed. Col. 7 lines 5-13 control command including next image*) and the transmission of the signal (*col. 7 lines 5-13 transmission of the current image*) is automatically determined (*60 sec per col. 7 lines 5-13*).

11. Regarding **claim 25**, Muoio teaches that during the display of the display element on the display device (*col. 7 lines 5-13*), a control signal (*next image*) is transmitted to the control computer device (*per col. 7 lines 2-13*).

12. Regarding **claim 26**, Muoio teaches that the point in time at which the display element is displayed on the display device (*col. 7 lines 5-13*) is controlled by the control computer device as a function of a control signal (*col. 9 lines 52-62 referring to the looping of the images at specified intervals*).

13. Regarding **claim 27**, Muoio teaches a plurality of display computer devices (*art space controllers 603 of Fig. 6*) and a control computer device (*art server controller 707 of Fig. 7*) that is connected to the display computer devices (*as shown*) are provided and that each display computer device (*art space controllers 603 of Fig. 6*) is associated with a minimum of one display device (*display 605 of Fig. 6 and col. 6 lines 14-17*).

14. Regarding **claim 28**, Muoio teaches that during generation of a signal (*col. 9 lines 25-39 where the generation of a signal is a change to the playlist*), a control signal is transmitted to the control computer device (*per col. 9 lines 25-39*).

15. **Claims 20-23** are rejected under 35 U.S.C. 103(a) as being unpatentable over Muoio et al. in US 6,670,934 in view of Amo et al. in US 2002/0007987 (hereinafter Amo).

16. Regarding **claim 20**, Muoio fails to disclose two control commands, one for loading onto the display computer device and the other for transmitting the signal to the display device. However, Amo discloses a method for broadcasting in multiple displays (*Amo, para. 8*) where a first control command (*Amo para. 35, command required to transmit info from servers to displays*) causes a file containing a display element (*Amo, images of para. 39*) to be loaded on the display computer device (*Amo, mass storage 314 of Fig. 3 per para. 37 and Fig. 5*) and that a second control command (*Amo, schedule per para. 37 lines 1-3*) causes the signal to be transmitted by the display computer device to the display device (*Amo, Fig. 5 and para. 37*) and causes the display elements (*Amo, images of para. 39*) to be displayed on the display device (*Amo, para. 37*). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to send a first control command to load the image onto the display computer device of Muoio and send a second control command to transmit the signal to the display device in Muoio's invention (*as taught by Amo*) because doing so would

result in reaching a display unit in any location from a central position in a consistent and timely manner (*Amo, para. 35*).

17. Regarding **claim 21**, Muoio in view of Amo teach said first control command (*Amo para. 35, command required to transmit info from servers to displays*) and said second control command (*Amo, schedule per para. 37 lines 1-3*) transmitted so as to be staggered by a period of time (*Amo, para. 35 teaches that the building server relies the information to the display. Para. 36 discloses that once the relevant info has been received it is processed by the display and then forwarded to the screen; thus teaching the second control command for display on the screen occurring only after processing of the information received by the server, consequently the first and second control command are staggered. Furthermore, para. 37 teaches the computer receiving a schedule, and displaying the information based on what the next information has to be displayed*) causing the signal to be transmitted and the display element to be displayed on the display device after a predetermined period of time (*Amo, schedule time of para. 37 for display of info in screen*) has elapsed after the transmission of the second control command (as per *schedule or playlist*).

18. Regarding **claim 22**, Muoio in view of Amo teach said first control command (*Amo, para. 35, command required to transmit info from servers to displays*) and said second control command (*Amo, schedule per para. 37 lines 1-3*) transmitted simultaneously (*Amo, para. 33 where the schedule is stored in the server and not in the*

*computer, and is transmitted real time to the display) causing the signal to be transmitted and the display element (Amo, images of para. 39 which is equivalent to Muoio's art images) to be displayed on the display device after a predetermined period of time has elapsed after the transmission of the second control command (as per schedule or playlist).*

19. Regarding **claim 23**, Muoio in view of Amo teach a plurality of display computer devices (*Amo, Fig. 2, elements 212 which corresponds to Muoio's space controllers 603 of Fig. 6*) synchronized to a reference point in time (*Amo, as required for synchronization of the city server with each building per para. 31 lines 12-27*) and that the second control command (*Amo, schedule per para. 37 lines 1-3*) causes the signal to be transmitted at a predetermined time (*as per schedule or playlist*).

### ***Response to Arguments***

20. Applicant's arguments with respect to claim 14 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

21. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LILIANA CERULLO whose telephone number is (571)270-5882. The examiner can normally be reached on Monday to Thursday 8AM-4PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amr Awad can be reached on 571-272-7764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/L. C./  
Examiner, Art Unit 2629

/Amr Awad/  
Supervisory Patent Examiner, Art Unit 2629